Save Assist Program Plan

# SaveAssist Program Design

1. The extension watches for DOM img tags in the webpage.
2. When a DOM img tag is detected, content script is injected that adds items to the right-click context menu. Specifically, the option to activate the SaveAssist program. Two options are given.
   1. SaveAssist -> Quick Save – Save the file to the last selected folder. This option will open the SaveAs dialog if there was no previously-selected folder.
   2. SaveAssist -> Quick Save… - Choose a new folder and save the file.
3. The SaveAssist native application, residing on the user’s computer, is then activated and passed information related to the user command.
4. When saving an image file, SaveAssist saves in the format of #####.ZZZ, where ##### is numeric and ZZZ is the image’s file extension.
   1. The numeric value starts at 00001 unless there are other files in the folder that match the ##### naming convention. If there are files in the folder that have numeric names, SaveAssist uses the value from the last saved file’s numeric value plus 1. File name numbers can exceed 99999, such as 999999999.

# SaveAssist Installation Instructions

1. Run the batch file “CreateSaveAssistFolder.bat” with Administrator privileges. This will create a folder on the user’s computer to hold the SaveAssist native app that facilitates the read and write operations of the SaveAssist FireFox extension.

Verify that the batch file has properly copied the files.

The directory is:

“C:\Program Files (x86)\Mozilla Firefox\extensions\SaveAssist”

1. Run the file “AddSaveAssistKeys.reg”. This will add registry keys to the Windows registry that will show FireFox where the SaveAssist native app is located.
2. Install Python from the installer in the folder.  
   I then ran this tutorial to get Python started: <https://www.digitalocean.com/community/tutorials/how-to-install-python-3-and-set-up-a-local-programming-environment-on-windows-10>

# Software Development

1. Working with the Python script
   1. Open Windows PowerShell
   2. Navigate to the directory with the Python script:  
      C:\Program Files (x86)\Mozilla Firefox\extensions\SaveAssist

## Working with Git

Tip: When attempting to input a commit message, Git may take you to the VIM editor. To get out and apply the message, press Escape and type ZZ.

To commit your changes, issue these two command:

Git add \*

Git commit -m”[message]”

To configure git against the remote github repository, use this command:

git remote add SA <https://github.com/Dabnoot/SaveAssist.git>

git remote –v

git remote add origin SA

If it is a new repository that you want to init with code on your computer, use this command:

git push -u origin master

To push your modifications to the github repository, use this command:

git push SA

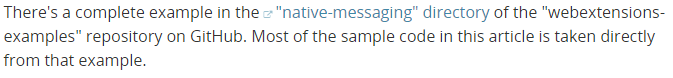
To get modifications from the github repository, use this command:

git fetch SA

Read more about Branching and Merging in Git here: <https://git-scm.com/book/en/v1/Git-Branching-Basic-Branching-and-Merging>

## Notes Regarding Extension-Specific Technology

Use native messaging to send a message from the SaveAssist extension to a native app. <https://developer.mozilla.org/en-US/Add-ons/WebExtensions/Native_messaging>



Firefox needs to know the location of the native app to run for a related extension. It looks to the registry to determine the location of the app. I created a file that will add the necessary Windows registry keys for the SaveAssist app, “AddSaveAssistKeys.reg”.

<https://developer.mozilla.org/en-US/Add-ons/WebExtensions/Native_manifests#Manifest_location>